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ABSTRACT

This document reports on outcomes of online courses offered at Santa Barbara City College (SBCC), California, during the three semesters from fall 2000 to fall 2001. The study combines a comparative and exploratory design to investigate the demographic makeup and academic success of online students compared to peer on campus classes and the campus average. The number of courses offered increased from 38 to 56 during the three semesters, and the number of sections went from 52 to 77. The unduplicated enrollment has increased from 1,293 in fall 2000 to 1,837 in fall 2001, out of a total SBCC enrollment of 15,313. In fall 2001, 32 of the courses offered were hybrid, and 24 were totally online. The demographic profile of online students has remained fairly stable over the three semesters. Female students dominate both hybrid and totally online courses, with a higher percentage of females in totally online courses. Compared to SBCC overall, online courses have a smaller percentage of Hispanic students, while the percentage of other minorities is in similar or higher proportion to SBCC overall. In fall 2001, the success rate for all online courses was 53%, compared to 69% for SBCC. (Contains 17 figures ad 23 tables.) (NB)

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Evaluation of Online Courses Fall 2000 to Fall 2001

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Executive Summary

The first comprehensive evaluation of online courses was conducted on the courses offered in Fall 1999. This study continues the evaluation process but expands the data included for analysis and comparison to three consecutive semesters – Fall 2000, Spring 2001 and Fall 2001. The multiple-semester assessment of online instruction delivery enhances the ability to determine trends and draw conclusions.

The purposes of the study continue to include exploration of the demographic and academic traits of online students, and comparisons with Santa Barbara City College students, in general, and peer traditional students (students enrolled on campus in ACCT 230, for example, as opposed to students enrolled in ACCT 230 online). The study uses data from SBCC's student information system.

Course Offerings and Enrollment

Over the last three semesters the online instruction has evolved in terms of courses offered and active at census from 38 in Fall 2000 to 56 in Fall 2001. The number of sections active at census has increased from 52 to 77. Some of the online courses have had some time to mature. Of the cumulative total of 66 different courses offered, active at census over the three semesters, 27 (41%) were offered every semester, 24 (36%) were offered in two of the three semester and 15 (23%) were offered, active at census only one semester.

In terms of delivery method, whereas hybrid courses continue to dominate at the course level, there are more multiple sections of the same course offered for totally online than for the hybrid courses. For example, in Fall 2001, overall there were 32 hybrid and 24 totally online different courses. Within the 32 hybrid courses there were 38 sections offered whereas within the 24 totally online courses there were 39 sections offered. In Fall 2000 and Spring 2001, the number of hybrid sections was significantly higher than totally online, a trend reversed in Fall 2001. This reverse in number of totally online sections is a positive change as hybrid courses had lower student success and higher attrition than totally online courses in Fall 2000 and Spring 2001.

The unduplicated enrollment has increased consistently over the three semesters from 1,293 in Fall 2000 to 1,837 in Fall 2001, a 42% increase. As noted in the analysis, the enrollment in PERDV 191A represents about 25% of all online enrollments.

Enrollment patterns indicate that students have followed a stable demand for online courses. The percentage of students enrolled in two or more online courses within the same semester has remained stable over the period, 22%. In all three semesters, at least 44% of the online students were enrolled only on online sections.

Some online students are repeating this experience over multiple semesters. Of the students who enrolled in at least one online course in Fall 2000, 21% of them enrolled in another online course in Spring 2001 and 13% of the original group were still enrolled in online classes in Fall 2001. For the Spring 2001 cohort, 18% enrolled in online courses again the following fall. The smaller rate could be due to the longer time period between spring and fall. In the future, these persistence rates will be compared to the on-campus peer courses and SBCC overall. Thus, roughly about 20% of online students enrolled online in one semester continue to

be enrolled online at least the next fall or spring semester. It is clear that a trend has emerged which indicates that the college is well on its way to achieve one of its goals for online delivery – the development of a stable "market" for this type of instruction. The extent to which students are taking online classes in multiple semesters is an indicator of both student satisfaction as well as sustained demand.

Student Demographic Characteristics

The demographic profile of online students has remained fairly stable over the three semesters. Female students dominate both totally online and hybrid courses in all three semesters, with a higher percentage of female students in totally online than hybrid courses. Course offerings help explain the gender distribution to some extent (e.g., HIT courses, which are all totally online, attract more female students). In term of age, online students are older than SBCC students in peer courses but slightly younger than the SBCC overall student population. Students in hybrid courses are older than those in totally online courses. PERDV 191A, which enrolls high school students, lowers the average age of the totally online students. The ethnicity of online students has been fairly similar to peer on-campus courses. Compared to SBCC overall, online courses have a smaller percentage of minority students, specifically Hispanic students. The other minorities are represented in similar or higher proportions (this is the case for Black students) compared to SBCC overall.

Student Success

The area of student success indicates some improvements as well as some continued concerns. Overall, online courses have a lower attrition by census rate than SBCC but higher than peer on-campus courses. Overall, online attrition by census was 27% in Fall 2000 and Fall 2001 and 24% in Spring 2001. The after census attrition was significantly higher for online classes: 27% in Fall 2000, 25% in Spring 2001 and 24% in Fall 2001. The positive aspect is that these rates have declined. The SBCC respective rates were 15%, 14% and 15%. The peer rates were similar to the SBCC rates. The analysis of attrition by type of online delivery indicates that hybrid courses have the highest attrition rates both before and after census. These high rates impact negatively the overall online attrition rates.

The high attrition rates impact the successful grade rates. The success rates for online classes continue to be significantly lower compared to SBCC overall and peer on-campus. In Fall 2001, the success rate for all online courses was 53% compared to 69% for SBCC and 67% for peer on campus. If PERDV 191A is removed, the Fall 2001 success rates for online classes increases to 56%. Totally online courses had higher courses success rates than hybrid in Fall 2000 and Spring 2001 but lower in Fall 2001. The reverse of course success rates in Fall 2001 is a significant improvement in the area of hybrid courses. When excluding Ws, the course success rates of online classes, while still much lower than for SBCC overall and peer on-campus, indicate that the major impediment in achieving satisfactory success in online courses is the high numbers of Ws. Attrition both before and after census continues to be the one major area of concern for online education at SBCC as well as at many other colleges. The college would be well served if the work that has begun in this area will continue.

Introduction

The expansion of online course delivery at Santa Barbara City College (SBCC) has been rapid and significant in terms of both breadth and number of courses offered. From two online courses in Fall 1998, online instruction expanded to 38 different courses in Fall 2000, 53 in Spring 2001, and 56 in Fall 2001.

A total of 1,293 students enrolled as of course census in at least one online class in Fall 2000, 1,600 in Spring 2001 and 1,837 in Fall 2001.

The purposes of this study are:

1.) to determine the demographic profile of students registered for online classes, their continued enrollment in online classes at SBCC and their success in the online classes;
2.) to compare the profiles of online students to students enrolled in peer on-campus classes and SBCC, in general;
3.) to guide the college in improving the delivery of online education.

Findings of this study inform the college administration and faculty about the characteristics of a group of students which has become an important part of SBCC and provide guidance in making decisions about the format and delivery of online courses in upcoming semesters.

Research Design and Method

The study combines a comparative and exploratory design to investigate the demographic makeup and academic success of online students compared to peer on campus classes and the college average. The design and method are based to a great extent on those of the first evaluation conducted for the Fall 1999 online classes. The only major departure in this study is the comparative analysis across three semesters – Fall 2000, Spring 2001 and Fall 2001.

The sections of the study – Course Offerings and Enrollments, Student Demographic Profile and Student Success – were developed using data from the SBCC student information system. All figures, unless specified otherwise, reflect enrollments (either duplicated or unduplicated) as of the census of the courses.

In all these sections, the data presented are for all online classes, on-campus peers of online classes (see Table 1 for a list of online classes and on-campus peers – for example if ACCT 230 was offered online, its peer would be the ACCT 230 offered on campus, if applicable) and SBCC overall. The data for online classes are further presented by type of online class. Two different types are identified: hybrid (online classwork with a number of required meetings on campus) and totally online (no on-campus meeting is required).

Table 1. Fall 2000, Spring 2001 and Fall 2001 Online Courses* and On-Campus Peer Correspondence

		Fall 2000		Spring 2001		Fall 2001	
Type of Course	Course	# of Sections	Had an on-campus peer section?	# of Sections	Had an on-campus peer section?	# of Sections	Had an on-campus peer section?
Hybrid	ACCT 230	1	Yes	1	Yes	1	Yes
	ART 101					1	Yes
	BIOL 102			1	Yes	1	Yes
	BIOMD 108					1	Yes
	BUSAD 101	1	Yes	1	Yes	1	Yes
	CHST 101	1	Yes	1	Yes	1	Yes
	CNEE 101			1	No	1	No
	CNEE 106					1	No
	CNEE 124			1	No	1	No
	CNEE 131	1	Yes	3	Yes	2	Yes
	CNEE 132			3	Yes	1	No
	CNEE 133	2	Yes			1	Yes
	CNEE 134	2	No			1	No
	COMAP 101	3	Yes	2	Yes	2	Yes
	COMAP 113A	1	Yes	1	Yes		
	COMAP 114	1	No	1	No		
	COMM 161	1	Yes	1	Yes		
	EARTH 101	1	Yes	1	Yes	1	Yes
	ECE 102			1	Yes		
	ENG 103	1	Yes	2	Yes	2	Yes
	ENG 110	1	Yes	1	Yes	1	Yes
	ENG 111	1	Yes	1	Yes	1	Yes
	HE 101	1	Yes	1	Yes	1	Yes
	HIST 103	1	Yes	1	Yes	1	Yes
	MAT 103			1	Yes	1	Yes
	MAT/GDP 218			1	Yes	1	No
	MATH 100			1	Yes	1	Yes
	MATH 107			1	Yes	2	Yes
	MATH 117	3	Yes	1	Yes	1	Yes
	MATH 120	1	Yes	1	Yes	1	Yes
	MUS 110	1	Yes	1	Yes	1	Yes
	MUS 110HR			1	Yes		
	PE 163A	1	Yes	1	Yes	1	Yes
	PHIL 101	1	Yes	1	Yes		
	PSYCH 100			1	Yes		
	SPAN 101	1	Yes	2	Yes	2	Yes
	SPAN 102	1	Yes	1	Yes	1	Yes
	SPAN 115	2	No	2	No	2	No
	SPAN 139	1	No				
	TA 103	1	Yes	1	Yes	1	Yes
Totally Online	AJ 101			1	Yes	1	Yes
	BIOL 120	1	Yes	1	No	1	Yes
	BIOL 120L	1	Yes	1	No	1	Yes
	BIOL 122			1	No	2	No
	BIOL 151S	1	No	1	No	1	No
	BIOL 98	2	No	1	No	2	Yes
	BIOMD 146			1	No		

		Fall 2000		Spring 2001		Fall 2001	
Type of Course	Course	# of Sections	Had an on-campus peer section?	# of Sections	Had an on-campus peer section?	# of Sections	Had an on-campus peer section?
	BUSAD 220			1	No	1	No
	CIM 100	1	No			2	No
	CIM 125			1	No	2	No
	CIM 200					2	No
	COMAP 103	2	Yes	3	Yes	2	No
	ECE 102					1	Yes
	GDP 109			1	Yes	1	Yes
	HIT 100	1	No			3	No
	HIT 150	1	No	1	No	1	No
	HIT 200	1	No			2	No
	HIT 205			1	No		
	HIT 210			2	No	1	No
	HIT 220			1	No		
	HIT 230			1	No		
	HIT 240	1	No			2	No
	HIT 250			1	No		
	HIT 275			1	No		
	PERDV191A	6	Yes	6	Yes	6	Yes
	PHIL 101					1	Yes
	PHIL 111					1	Yes
	PSYCH 100	1	Yes			1	Yes
	SPAN 103					1	Yes
	SPAN 104					1	Yes

* This table contains courses with active enrollments as of census of the courses.

Course Offerings and Enrollments

The number of courses and sections of online classes continued to rise throughout the period from Fall 2000 to Fall 2001. As shown in Figure 1, the number of courses offered online increased from 38 to 56. Figure 2 indicates that the number of sections increased from 52 to 77 over the same period. The number of hybrid online courses appears to have stopped growing in Fall 2001 whereas the number of totally online courses continued to increase. In Fall 2001 the number of totally online sections exceeded the number of hybrid sections for the first time. The number of sections of each course offered by semester (see Table 1) indicates that for most courses the number of sections offered has remained stable over the study period. The rise in the number of sections appears to be solely due to the increase in the different types of courses taught online.

Figure 1

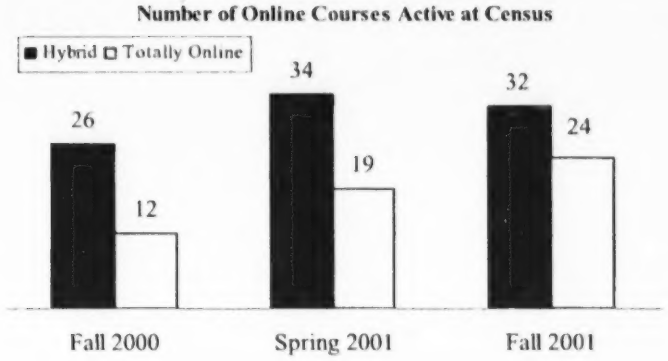
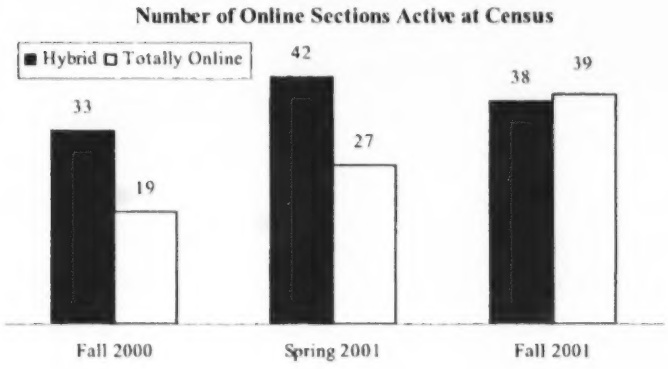


Figure 2

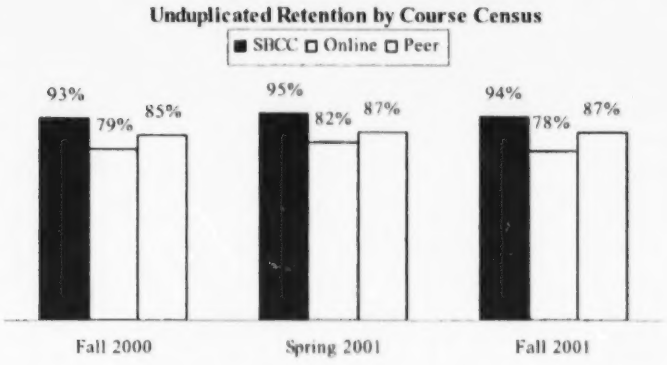


In terms of unduplicated enrollments, students tended to drop all of their online classes by course census at a higher rate than their counterparts in the on-campus peer courses as shown in Table 3. For example in Fall 2001, 22% of students enrolled in online classes dropped online classes before the course census whereas only 13% of students in on-campus peer classes dropped peer classes. Figure 3 indicates that, compared to SBCC overall (94% in Fall 2001), students tended to drop from online classes by the course census at a much higher rate.

Table 3: Unduplicated Enrollments

	Fall 2000			Spring 2001			Fall 2001		
	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census
SBCC	15,313	14,230	93%	15,630	14,773	95%	16,227	15,264	94%
Online	1,646	1,293	79%	1,961	1,600	82%	2,344	1,837	78%
Peer	5,400	4,594	85%	5,978	5,191	87%	6,488	5,674	87%

Figure 3



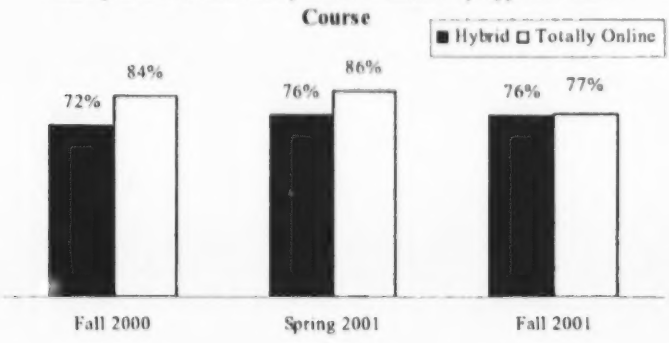
Hybrid courses had a lower student retention rate by census than the totally online courses although the gap seems to have narrowed for Fall 2001 (see Table 4). In Fall 2000, 72% of students stayed in their hybrid course by census as compared to 84% of the totally online students. By Fall 2001 the difference was 76% to 77% as shown in Figure 4. The increase seen in totally online courses can explain the smaller retention for these courses found in Fall 2001.

Table 4: Unduplicated Online Enrollments by Type of Online Course

	Fall 2000			Spring 2001			Fall 2001		
	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census
Hybrid	1,028	736	72%	1,233	942	76%	1,194	906	76%
Totally Online	728	612	84%	855	738	86%	1,303	1,008	77%
All*	1,646	1,293	79%	1,961	1,600	82%	2,344	1,837	78%

*The total unduplicated students for the two types of courses does not add to all students because students could enroll in both a hybrid and totally online class during a semester. Thus they are counted in the unduplicated headcount of each type of course in which they were enrolled.

Figure 4



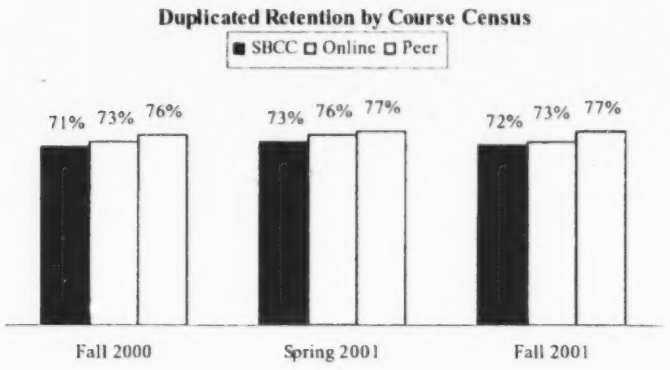
When duplicated enrollments are considered, online courses also lost enrollment by the course census at a higher rate than their on-campus peer courses, although the difference is not as high as for unduplicated student counts. Table 5 indicates that for Fall 2001, 73% of enrollments in online courses were retained by the course census while 77% were retained by the on-campus

peer courses. Interestingly, in terms of duplicated enrollments, online courses had a higher retention rate by course census than SBCC overall (see the pattern in Figure 5). It appears that although students drop many classes they tend to stay enrolled in at least one class.

Table 5: Duplicated Enrollments

	Fall 2000			Spring 2001			Fall 2001		
	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census
SBCC	61,293	43,266	71%	59,160	43,223	73%	63,723	46,115	72%
Online	2,264	1,649	73%	2,766	2,111	76%	3,167	2,323	73%
Peer	7,972	6,056	76%	9,372	7,189	77%	10,826	8,286	77%

Figure 5

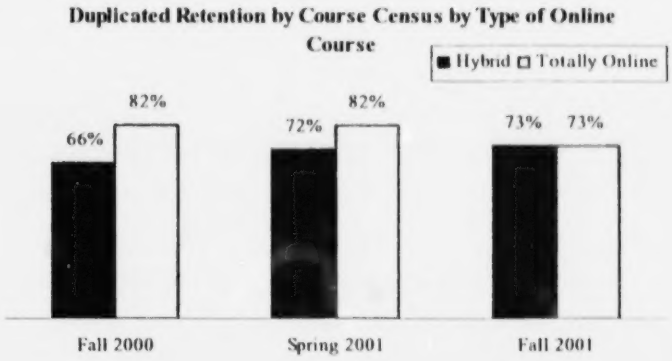


Comparing hybrid to totally online courses, the percentage of enrollments remaining by the course census was the same for each type of course in Fall 2001 (see Table 6 and Figure 6) after showing a higher attrition rate for hybrid courses in previous semesters. Again, it appears that the totally online classes offered in Fall 2001 have a different overall retention by course census than in previous semesters.

Table 6: Duplicated Online Enrollments by Type of Course

	Fall 2000			Spring 2001			Fall 2001		
	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census
Hybrid	1,306	866	66%	1,617	1,171	72%	1,465	1,074	73%
Totally Online	958	783	82%	1,149	940	82%	1,702	1,249	73%
All	2,264	1,649	73%	2,766	2,111	76%	3,167	2,323	73%

Figure 6



Among hybrid courses, Table 7 shows that several courses that were offered in all three semesters had retention by census similar to or greater than hybrid courses overall. The teaching and delivery techniques used in CHST 101, CNEE 131, COMAP 101, MATH 120, and SPAN 102 should be investigated to determine whether they could help improve the retention of enrollment in other hybrid courses. Not many totally online courses were offered during all three semesters studied. Of these, only PERDV 191A retained students at a rate above the combined rate for totally online courses. It should be noted that PERDV 191A enrollment makes up about a third of totally online enrollment so it strongly affects the overall rate. In addition, these classes are offered to high school students, thus the much lower attrition rate.

Table 7: Online Enrollment by Course

		Fall 2000			Spring 2001			Fall 2001		
Type	Course	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census
Hybrid	ACCT 230	39	20	51%	29	17	59%	35	15	43%
	ART 101							40	29	73%
	BIOL 102				27	19	70%	22	13	59%
	BIOMD 108							30	26	87%
	BUSAD 101	41	16	39%	50	21	42%	40	24	60%
	CHST 101	27	20	74%	47	36	77%	44	35	80%
	CNEE 101				55	49	89%	60	48	80%
	CNEE 106							42	33	79%
	CNEE 124				33	29	88%	26	21	81%
	CNEE 131	37	34	92%	90	67	74%	54	47	87%
	CNEE 132				104	85	82%	43	36	84%
	CNEE 133	63	42	67%				29	27	93%
	CNEE 134	62	42	68%				29	26	90%
	COMAP 101	93	65	70%	85	63	74%	84	63	75%
	COMAP 113A	31	25	81%	31	26	84%			
	COMAP 114	13	12	92%	34	29	85%			
	COMM 161	38	17	45%	37	27	73%			
	EARTH 101	116	83	72%	71	48	68%	62	45	73%
	ECE 102				42	38	90%			
	ENG 103	36	29	81%	65	46	71%	67	53	79%
	ENG 110	48	31	65%	52	40	77%	49	22	45%

		Fall 2000			Spring 2001			Fall 2001		
Type	Course	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census
	ENG 111	49	35	71%	49	35	71%	42	28	67%
	GDP/MAT 218				29	22	76%	25	15	60%
	HE 101	50	29	58%	49	31	63%	43	34	79%
	HIST 103	67	35	52%	73	49	67%	57	44	77%
	MAT 103				32	24	75%	26	21	81%
	MATH 100				36	25	69%	48	34	71%
	MATH 107				47	24	51%	72	47	65%
	MATH 117	117	83	71%	40	28	70%	46	29	63%
	MATH 120	40	30	75%	36	26	72%	51	41	80%
	MUS 110	42	26	62%	41	30	73%	51	38	75%
	MUS 110HR				7	5	71%			
	PE 163A	36	27	75%	37	26	70%	36	25	69%
	PHIL 101	48	26	54%	43	29	67%			
	PSYCH 100				44	28	64%			
	SPAN 101	86	52	60%	99	77	78%	102	76	75%
	SPAN 102	40	27	68%	41	30	73%	49	39	80%
	SPAN 115	33	21	64%	34	24	71%	27	18	67%
	SPAN 139	14	8	57%						
	TA 103	40	31	78%	28	18	64%	34	22	65%
Totally Online	AJ 101				28	23	82%	44	30	68%
	BIOL 120	70	57	81%	66	51	77%	58	40	69%
	BIOL 120L	69	54	78%	67	51	76%	58	40	69%
	BIOL 122				50	44	88%	79	58	73%
	BIOL 151S	21	16	76%	21	19	90%	19	10	53%
	BIOL 98	29	18	62%	10	6	60%	19	10	53%
	BIOMD 146				53	48	91%			
	BUSAD 220				49	32	65%	37	24	65%
	CIM 100	38	31	82%				43	32	74%
	CIM 125				30	24	80%	25	22	88%
	CIM 200							27	17	63%
	COMAP 103	58	43	74%	65	48	74%	87	64	74%
	ECE 102							55	50	91%
	GDP 109				41	23	56%	36	16	44%
	HIT 100	135	98	73%				115	97	84%
	HIT 150	42	35	83%	41	26	63%	49	36	73%
	HIT 200	64	51	80%				125	86	69%
	HIT 205				33	25	76%			
	HIT 210				102	60	59%	38	32	84%
	HIT 220				50	45	90%			
	HIT 230				47	43	91%			
	HIT 240	53	44	83%				56	44	79%
	HIT 250				32	27	84%			
	HIT 275				18	14	78%			
	PERDV191A	324	301	93%	346	331	96%	547	427	78%
	PHIL 101							48	33	69%
	PHIL 111							36	20	56%
	PSYCH 100	55	35	64%				45	21	47%

		Fall 2000			Spring 2001			Fall 2001		
Type	Course	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census	All Enrollments	As of Course Census	% Enrolled at Course Census
	SPAN 103							39	29	74%
	SPAN 104							17	11	65%
Total		2264	1649	73%	2766	2111	76%	3167	2323	73%

As expected, in general, enrollments in online courses are smaller than the enrollments in corresponding on-campus peer courses as shown in Table 8. The Fall 2001 courses with larger enrollment online than on campus were CNEE 131, CNEE 133, BIOL 120/120L, and PERDV 191A.

Table 8: Online and Peer Course Enrollments at Course Census

		Fall 2000		Spring 2001		Fall 2001	
Type	Course	Online	Peer	Online	Peer	Online	Peer
Hybrid	ACCT 230	20	155	17	130	15	157
	ART 101					29	254
	BIOL 102			19	31	13	39
	BIOMD 108					26	41
	BUSAD 101	16	280	21	305	24	358
	CHST 101	20	49	36	52	35	63
	CNEE 101			49		48	
	CNEE 106					33	
	CNEE 124			29		21	
	CNEE 131	34	13	67	4	47	7
	CNEE 132		0	85	8	36	
	CNEE 133	42	3			27	3
	CNEE 134	42				26	
	COMAP 101	65	208	63	184	63	198
	COMAP 113A	25	14	26	22		
	COMAP 114	12		29			
	COMM 161	17	60	27	44		
	EARTH 101	83	503	48	498	45	490
	ECE 102			38	153		
	ENG 103	29	250	46	147	53	263
	ENG 110	31	1,174	40	885	22	1,177
	ENG 111	35	677	35	826	28	634
	GDP/MAT 218			22	20	15	
	HE 101	29	199	31	216	34	227
	HIST 103	35	160	49	171	44	185
	MAT 103			24	74	21	60
	MATH 100			25	549	34	616
	MATH 107			24	503	47	526
	MATH 117	83	386	28	434	29	485
	MATH 120	30	298	26	274	41	318
	MUS 110	26	136	30	104	38	126
	MUS 110HR		0	5	12		
	PE 163A	27	31	26	33	25	26
	PHIL 101	26	141	29	124		
	PSYCH 100			28	535		

		Fall 2000		Spring 2001		Fall 2001	
Type	Course	Online	Peer	Online	Peer	Online	Peer
	SPAN 101	52	334	77	341	76	346
	SPAN 102	27	195	30	174	39	154
	SPAN 115	21		24		18	
	SPAN 139	8					
	TA 103	31	86	18	50	22	60
Totally Online	AJ 101			23	134	30	172
	BIOL 120	57	18	51		40	25
	BIOL 120L	54	18	51		40	26
	BIOL 122			44		58	
	BIOL 151S	16		19		10	
	BIOL 98	18		6		10	1
	BIOMD 146			48			
	BUSAD 220			32		24	
	CIM 100	31				32	
	CIM 125			24		22	
	CIM 200					17	
	COMAP 103	43	61	48	46	64	
	ECE 102					50	123
	GDP 109			23	87	16	111
	HIT 100	98				97	
	HIT 150	35		26		36	
	HIT 200	51				86	
	HIT 205			25			
	HIT 210			60		32	
	HIT 220			45			
	HIT 230			43			
	HIT 240	44				44	
	HIT 250			27			
	HIT 275			14			
	PERDV191A	301	33	331	19	427	60
	PHIL 101					33	141
	PHIL 111					20	97
	PSYCH 100	35	574			21	582
	SPAN 103					29	98
	SPAN 104					11	37
Total		1649	6,056	2111	7,189	2323	8,286

The majority of students enrolled in online classes took only one of their classes online in each of the three semesters (see Table 9). In Fall 2001, 79% enrolled in a single online class while another 17% enrolled in two online classes.

Table 9: Number of Online Sections in which Students were Enrolled by Course Census

	Fall 2000		Spring 2001		Fall 2001	
# Online Courses	# Students	%	# Students	%	# Students	%
1	1,016	79%	1,235	77%	1,454	79%
2	215	17%	259	16%	305	17%
3	48	4%	74	5%	53	3%
4 or more	14	1%	32	2%	25	1%
Total	1,293		1,600		1,837	

Among students enrolled in at least one online section at course census, Table 10 indicates that about 45% did not enroll in any on-campus classes in addition to their online class load. The rest of the students showed a relatively even spread among one, two, three, and four or more on-campus classes.

Table 10: Enrollment by Course Census in On-Campus Sections by Online Students

	Fall 2000		Spring 2001		Fall 2001	
# On-Campus Courses	# Students	%	# Students	%	# Students	%
0	600	46%	715	45%	815	44%
1	129	10%	218	14%	239	13%
2	137	11%	178	11%	225	12%
3	191	15%	216	14%	236	13%
4 or more	236	18%	273	17%	322	18%
Total	1,293		1,600		1,837	

Persistence from one semester to the next in online classes is shown in Table 11. Of the students who enrolled in at least one online course in Fall 2000, 21% of them enrolled in another online course in Spring 2001 and 13% of the original group were still enrolled in online classes in Fall 2001. For the Spring 2001 cohort, 18% enrolled in online courses again the following fall. The smaller rate could be due to the longer time period between spring and fall. In the future, these persistence rates will be compared to the on-campus peer courses and SBCC overall.

Table 11: Student Persistence in Online Courses

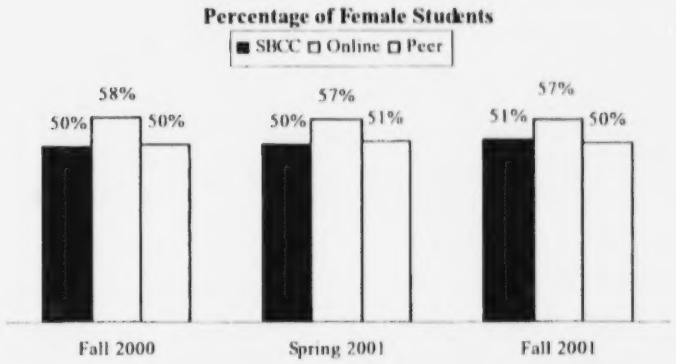
	Enrolled in at least one online class…			
	Fall 2000		Spring 2001	
Also enrolled in at least one online class…	N	%	N	%
Spring 2001	274	21%		
Fall 2001	173	13%	284	18%
Total	1,293		1,600	

Student Demographic Profile

Gender

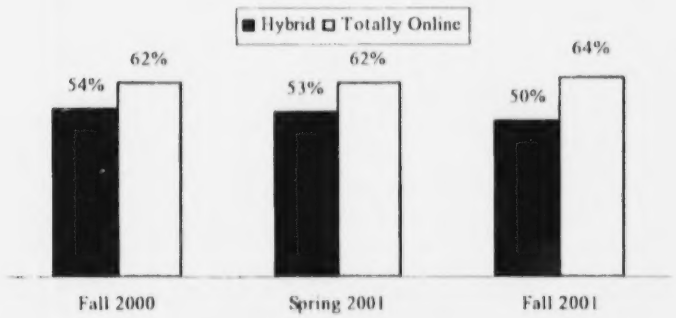
Students enrolled in online courses are more likely to be female than those enrolled in on-campus peer courses. Figure 7 shows the percentage of female students in SBCC, online, and peer courses. In Fall 2001, 57% of online students were female whereas only 50% of students in peer courses were female. The gender distribution of peer course tended to mirror that of SBCC as a whole.

Figure 7



Within online classes, as indicated in Figure 8, females are more heavily enrolled in totally online classes (64% in Fall 2001) as compared to hybrid online classes (50% in Fall 2001). It appears that female students prefer taking classes without coming to campus possibly due to family and work obligations.

Figure 8



Age

Figure 9 shows that the average age of online students was consistently higher than the average age of students in on-campus peer classes. For Fall 2001, online students had an average age of 25.3 whereas their on-campus peers had an average age of 21.8. The difference in average age for each term is highly statistically significant as shown in Table 12. However, the average age of online students dropped each semester starting from 25.9 years in Fall 2000 so there may be a trend of decreasing age in online classes.

Figure 9

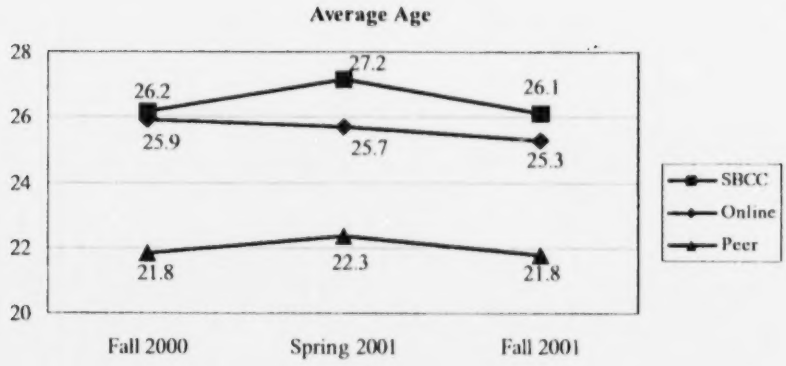
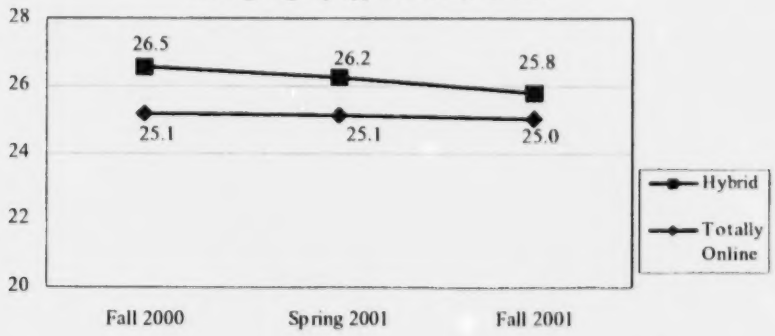


Table 12: T-test of Significance of Difference Between Average Age of Online vs. Peer Students

		Fall 2000	Spring 2001	Fall 2001
t (equal variances not assumed)		11.542	11.317	12.149
df		1,568.670	2,028.022	2,351.725
p (two-tailed)		< 0.0005	< 0.0005	< 0.0005
Average Age Difference (online - peer)		4.06	3.36	3.47
95% Confidence Bound for Average Age Difference	Lower	3.37	2.78	2.93
	Upper	4.75	3.95	4.02

Figure 10 indicates the average age of students by type of online course. Students in hybrid classes are older, on average, than those in totally online classes (25.8 years to 25.0 years in Fall 2001). It appears that older students are more comfortable having some on-campus contact for their classes perhaps reflecting less comfort with technology. Over the three terms studied, however, the gap in average age between students in hybrid online classes and students in totally online classes has been closing.

Figure 10



Ethnicity

The ethnicity of students in online courses has generally been similar to the ethnicity of students in the on-campus peer courses as shown in Table 13. Compared to SBCC overall, online courses tend to have fewer minority students. For Fall 2001, 64% of online students indicated an ethnicity of white, 66% of peer students but only 60% of SBCC students did so.

Table 13: Ethnicity of Students Enrolled at Course Census

		Fall 2000		Spring 2001		Fall 2001	
	Ethnicity	N	%	N	%	N	%
SBCC	White (Non-Hispanic)	8,739	61%	9,021	61%	9,125	60%
	Hispanic	3,610	25%	3,772	26%	4,158	27%
	Asian-American	794	6%	858	6%	871	6%
	Black	259	2%	293	2%	311	2%
	Filipino	158	1%	162	1%	165	1%
	American Indian	126	1%	122	1%	116	1%
	Other Non-White	544	4%	545	4%	518	3%
SBCC Total		14,230		14,773		15,264	
Online	White (Non-Hispanic)	889	69%	1065	67%	1181	64%
	Hispanic	228	18%	296	19%	405	22%
	Asian-American	78	6%	103	6%	103	6%
	Black	28	2%	47	3%	57	3%
	Filipino	15	1%	29	2%	35	2%
	American Indian	16	1%	13	1%	13	1%
	Other Non-White	39	3%	47	3%	43	2%
Online Total		1,293		1,600		1837	
Peer	White (Non-Hispanic)	3,123	68%	3,402	66%	3,750	66%
	Hispanic	869	19%	1,095	21%	1,194	21%
	Asian-American	246	5%	293	6%	329	6%
	Black	79	2%	97	2%	98	2%
	Filipino	48	1%	60	1%	67	1%
	American Indian	31	1%	39	1%	38	1%
	Other Non-White	198	4%	205	4%	198	3%
Peer Total		4,594		5,191		5,674	

The ethnic pattern observed between hybrid and totally online courses varied by term (see Table 14). In Fall 2001, totally online classes enrolled a higher percentage of Hispanic and Black students than hybrid courses.

Table 14: Ethnicity of Students Enrolled at Course Census by Type of Online Class

		Fall 2000		Spring 2001		Fall 2001	
	Ethnicity	N	%	N	%	N	%
Hybrid	White (Non-Hispanic)	503	68%	612	65%	613	68%
	Hispanic	135	18%	176	19%	175	19%
	Asian-American	45	6%	74	8%	51	6%
	Black	10	1%	21	2%	22	2%
	Filipino	5	1%	12	1%	12	1%
	American Indian	9	1%	8	1%	10	1%
	Other Non-White	29	4%	39	4%	23	3%
Hybrid Total		736		942		906	
Totally Online	White (Non-Hispanic)	423	69%	507	69%	613	61%
	Hispanic	101	17%	135	18%	246	24%
	Asian-American	35	6%	33	4%	56	6%
	Black	19	3%	26	4%	39	4%
	Filipino	12	2%	18	2%	25	2%
	American Indian	9	1%	7	1%	6	1%
	Other Non-White	13	2%	12	2%	23	2%
Totally Online Total		612		738		1008	

Student Success

Course Attrition

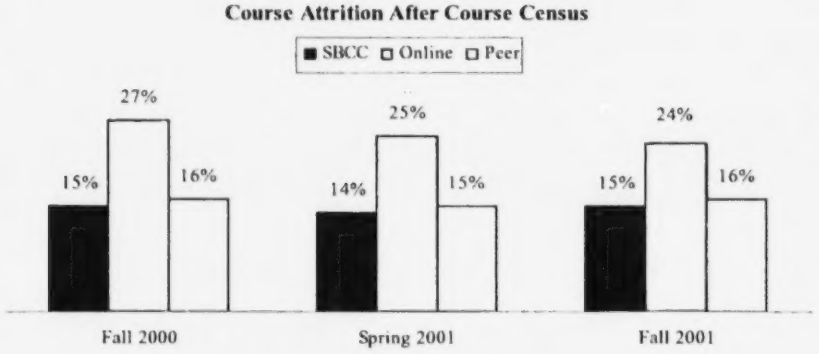
As mentioned in the Enrollment section, online classes had higher attrition by the census of the course than peer classes although both performed better than SBCC as a whole (see Table 15). A greater difference is observed when looking at course attrition between the census of the course and the end of the course (students who obtain a grade of W). Figure 11 indicates that online courses have a higher percentage of drops between the census of the course and the end of the course than either peer courses or SBCC overall. In Fall 2001, hybrid courses had a higher attrition rate after course census (28%) than totally online courses (21%).

Table 15: Course Attrition*

	Fall 2000		Spring 2001		Fall 2001	
Type	Attrition by Course Census	Attrition Between Course Census & End of Course	Attrition by Course Census	Attrition Between Course Census & End of Course	Attrition by Course Census	Attrition Between Course Census & End of Course
SBCC	29%	15%	27%	14%	28%	15%
Online	27%	27%	24%	25%	27%	24%
Peer	24%	16%	23%	15%	23%	16%
Hybrid	34%	31%	28%	32%	27%	28%
Totally Online	18%	22%	18%	18%	27%	21%

*In Fall 2000, 27% of all enrollments in online courses dropped before the course census. 27% of those enrolled as of course census dropped before the end of the course.

Figure 11



On average, more than half of all students ever enrolled in online classes (including those who dropped before course census) did not drop any of their online classes (see Table 16). In Fall 2001, 38% dropped one of their online classes while 9% of students dropped two or more online classes.

Table 16: Number of Online Courses Dropped by the End of the Course

	Fall 2000		Spring 2001		Fall 2001	
Number of Courses Dropped	N	%	N	%	N	%
0	829	50%	1,038	53%	1,250	53%
1	632	38%	725	37%	893	38%
2	145	9%	148	8%	144	6%
3	29	2%	40	2%	38	2%
4 or more	11	1%	10	1%	19	1%
Total	1,646		1,961		2,344	

Comparing the attrition rate after census for each online course to its on-campus peer course in Table 17, online courses have a higher attrition rate except in a few cases. Only PERDV 191A had at least as small a rate of attrition after census as its peer course for all three of the semesters studied.

Table 17: Attrition After Census by Course

		Fall 2000		Spring 2001		Fall 2001	
Type	Course	Online	Peer	Online	Peer	Online	Peer
Hybrid	ACCT 230	32%	17%	41%	14%	20%	18%
	ART 101					25%	12%
	BIOL 102			26%	6%	18%	21%
	BIOMD 108					23%	7%
	BUSAD 101	44%	20%	38%	16%	18%	18%
	CHST 101	25%	10%	22%	2%	36%	11%
	CNEE 101			22%		10%	
	CNEE 106					5%	
	CNEE 124			28%		4%	
	CNEE 131	30%	31%	27%	0%	13%	14%
	CNEE 132			23%	0%	13%	
	CNEE 133	7%	0%			11%	33%
	CNEE 134	7%				11%	
	COMAP 101	32%	19%	43%	22%	40%	15%

		Fall 2000		Spring 2001		Fall 2001	
Type	Course	Online	Peer	Online	Peer	Online	Peer
	COMAP 113A	16%	36%	53%	9%		
	COMAP 114	9%		59%			
	COMM 161	18%	15%	22%	5%		
	EARTH 101	49%	11%	19%	14%	22%	12%
	ECE 102			26%	13%		
	ENG 103	17%	13%	20%	10%	17%	19%
	ENG 110	52%	17%	58%	16%	27%	15%
	ENG 111	15%	13%	23%	12%	28%	13%
	HE 101	0%	10%	32%	13%	29%	11%
	HIST 103	20%	19%	12%	18%	27%	11%
	MAT 103			58%	27%	33%	7%
	MAT/GDP 218			23%	35%	60%	
	MATH 100			40%	19%	12%	17%
	MATH 107			54%	15%	26%	16%
	MATH 117	33%	10%	21%	9%	21%	11%
	MATH 120	23%	16%	15%	18%	22%	22%
	MUS 110	54%	12%	33%	11%	42%	19%
	MUS 110HR			40%	8%		
	PE 163A	41%	26%	27%	30%	52%	4%
	PHIL 101	50%	16%	38%	24%		
	PSYCH 100			29%	13%		
	SPAN 101	45%	19%	44%	23%	45%	22%
	SPAN 102	40%	14%	30%	17%	40%	21%
	SPAN 115	14%		46%		22%	
	SPAN 139	13%					
	TA 103	50%	12%	22%	6%	55%	15%
Totally	AJ 101			30%	10%	13%	10%
Online	BIOL 120	33%	22%	27%		40%	8%
	BIOL 120L*						
	BIOL 122			20%		29%	
	BIOL 151S	69%		26%		27%	
	BIOL 98	6%		29%		10%	0%
	BIOMD 146			15%			
	BUSAD 220			13%		46%	
	CIM 100	13%				22%	
	CIM 125			21%		18%	
	CIM 200					41%	
	COMAP 103	25%	28%	8%	9%	24%	
	ECE 102					28%	16%
	GDP 109			22%	18%	44%	32%
	HIT 100	15%				21%	
	HIT 150	31%		15%		31%	
	HIT 200	31%				30%	
	HIT 205			40%			
	HIT 210			20%		31%	
	HIT 220			22%			
	HIT 230			16%			
	HIT 240	32%				32%	
	HIT 250			15%			
	HIT 275			0%			

		Fall 2000		Spring 2001		Fall 2001	
Type	Course	Online	Peer	Online	Peer	Online	Peer
	PERDV 191A	2%	18%	2%	42%	3%	15%
	PHIL 101					27%	14%
	PHIL 111					15%	14%
	PSYCH 100	40%	17%			33%	17%
	SPAN 103					21%	8%
	SPAN 104					36%	11%
Total		27%	16%	25%	15%	24%	16%

*BIOL 120L is a lab for which no grades are assigned.

Grade Distributions

Students in online courses were less successful than their counterparts in on-campus peer classes as shown in Table 18. For Fall 2001, only 53% of students enrolled in an online course received a grade of A, B, C, or CR for that course while 67% of students in peer courses did so. Compared to SBCC overall, online classes also had a smaller success rate. Because PERDV 191A is the largest online class, success rates without this class were calculated to see if its effect on online course success. Although the success rate for online courses without PERDV 191A was still lower than for peer classes without PERDV 191A (see Figure 12), the unsuccessful rate appears to be similar for the other online classes.

Table 18: Grade Distribution

		Fall 2000		Spring 2001		Fall 2001	
Type	Grade	N	%	N	%	N	%
SBCC	Successful	30,390	70%	30,585	71%	31,879	69%
	Unsuccessful	6,665	15%	6,752	16%	7,521	16%
	Withdraw	6,455	15%	5,971	14%	6,706	15%
SBCC Total		43,510		43,308		46,106	
Online (including PERDV 191A)	Successful	909	57%	1,123	54%	1,233	53%
	Unsuccessful	304	19%	461	22%	555	24%
	Withdraw	386	24%	489	24%	531	23%
Online Total		1,599		2,073		2,319	
Peer	Successful	4,163	69%	4,747	66%	5,575	67%
	Unsuccessful	937	16%	1,348	19%	1,414	17%
	Withdraw	938	16%	1,094	15%	1,271	15%
Peer Total		6,038		7,189		8,260	
Online (without PERDV191A)	Successful	704	54%	967	56%	1,053	56%
	Unsuccessful	208	16%	286	16%	299	16%
	Withdraw	380	29%	482	28%	518	28%
Online (without PERDV191A) Total		1,292		1,735		1,870	
Peer (without PERDV191A)	Successful	4,148	69%	4,739	66%	5,546	68%
	Unsuccessful	925	15%	1,345	19%	1,392	17%
	Withdraw	932	16%	1,086	15%	1,262	15%
Peer (without PERDV191A) Total		6,005		7,170		8,200	

Figure 11

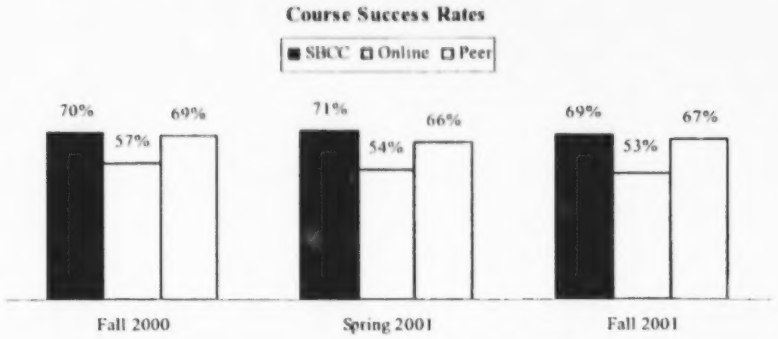
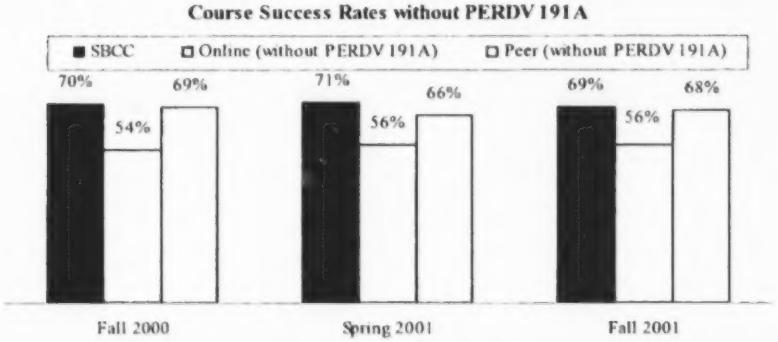


Figure 12

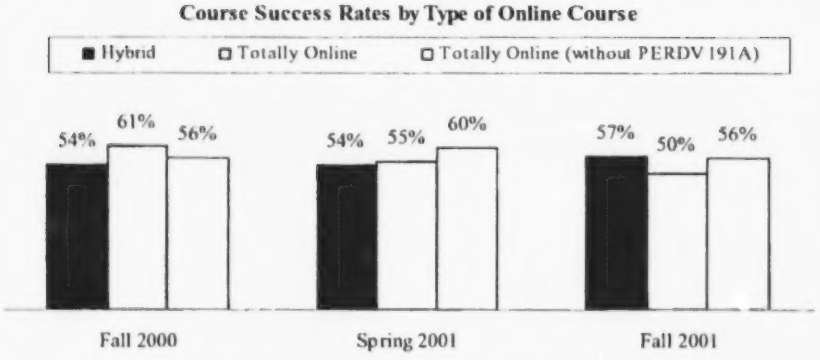


The rates of success of students in totally online classes versus those in hybrid classes appears to have reversed over the study period as shown in Table 19. However, when the influence of the totally online PERDV 191A class is eliminated, the Fall 2001 success rate for totally online classes was 56% as compared to 57% for hybrid online classes (see Figure 13). It appears that PERDV 191A is currently the largest factor making a difference in the success rate of the two types of online classes.

Table 19: Grade Distribution in Online Courses

		Fall 2000		Spring 2001		Fall 2001	
Type	Grade	N	%	N	%	N	%
Hybrid	Successful	463	54%	629	54%	611	57%
	Unsuccessful	136	16%	171	15%	168	16%
	Withdraw	264	31%	373	32%	300	28%
Hybrid Total		863		1,173		1,079	
Totally Online	Successful	446	61%	494	55%	622	50%
	Unsuccessful	168	23%	290	32%	387	31%
	Withdraw	122	17%	116	13%	231	19%
Totally Online Total		736		900		1,240	
Totally Online (without PERDV191A)	Successful	241	56%	338	60%	442	56%
	Unsuccessful	72	17%	115	20%	131	17%
	Withdraw	116	27%	109	19%	218	28%
Totally Online (without PERDV191A) Total		429		562		791	

Figure 13

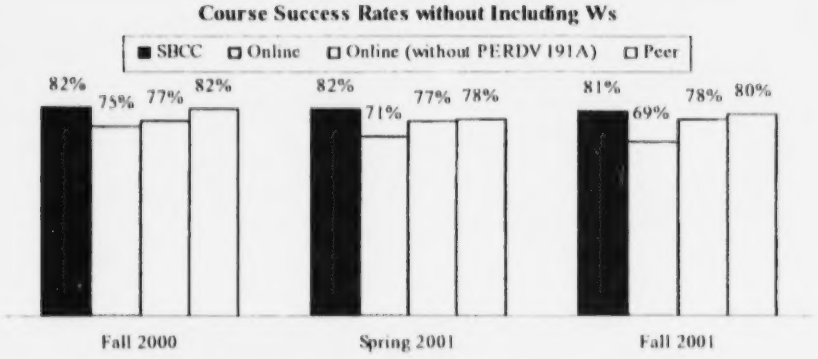


When the grade distribution is calculated without including the Ws, there is a significant change. Once the influence of PERDV 191A is removed, as shown in Table 20 and Figure 14, the success rates in online classes are only slightly less than those in the on-campus peer classes which in turn are slightly less than SBCC overall. It appears that the major impediment to improving the success rates in online classes is the high number of Ws received compared to the on-campus equivalents.

Table 20: Grade Distribution Calculated without Including Ws

		Fall 2000		Spring 2001		Fall 2001	
Type	Grade	N	%	N	%	N	%
SBCC	Successful	30,390	82%	30,585	82%	31,879	81%
	Unsuccessful	6,665	18%	6,752	18%	7,521	19%
SBCC Total		37,055		37,337		39,400	
Online	Successful	909	75%	1,123	71%	1,233	69%
	Unsuccessful	304	25%	461	29%	555	31%
Online Total		1,213		1,584		1,788	
Peer	Successful	4,163	82%	4,747	78%	5,575	80%
	Unsuccessful	937	18%	1,348	22%	1,414	20%
Peer Total		5,100		6,095		6,989	
Online (without PERDV191A)	Successful	704	77%	967	77%	1,053	78%
	Unsuccessful	208	23%	286	23%	299	22%
Online (without PERDV191A) Total		912		1,253		1,352	
Peer (without PERDV191A)	Successful	4,148	82%	4,739	78%	5,546	80%
	Unsuccessful	925	18%	1,345	22%	1,392	20%
Peer (without PERDV191A) Total		5,073		6,084		6,938	

Figure 14



The association between grade and choice of online or peer course is investigated in Table 21. For this part of the study, grades of W were excluded and the PERDV 191A grades were not used. There appears to be an association in Fall 2000 that disappeared in Spring 2001 as evidenced by the nearly identical success rate shown for the last two bars in each term of Figure 14. In Fall 2001, there was again mild evidence of a statistically significant association between method of instruction and grades, but the observed difference was only 2%. The implication is that if the problem of higher withdrawal rates in online courses can be solved, success rates for online courses should be similar to on-campus courses.

Table 21: Chi-Square Tests of Association between Method of Instruction (Online without PERDV 191A vs. Peer without PERDV 191A) and Grades (without Ws)

Term	Number of Cases	Pearson Chi-Square	df	Asymptotic Significance (2-sided)
Fall 2000 [a]	5,985	10.535	1	0.001
Spring 2001 [b]	7,337	0.310	1	0.578
Fall 2001 [c]	8,290	2.934	1	0.087

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 172.65.
b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 278.54.
c. 0 cells (.0%) have expected count less than 5. The minimum expected count is 275.78.

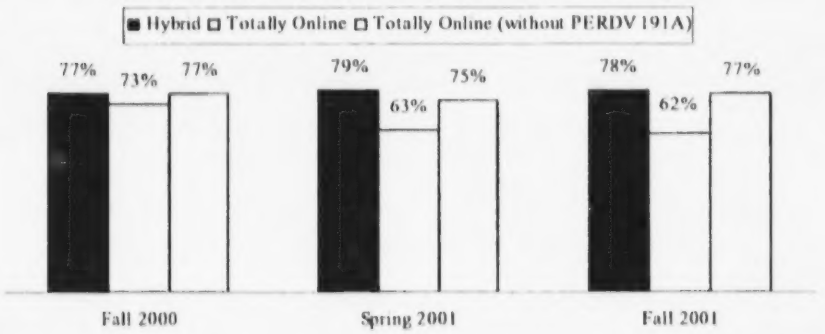
Students in hybrid and totally online courses showed a large difference in success rate without Ws as shown in Table 22. However, this difference can once again be mainly attributed to the influence of PERDV 191A. For Fall 2001, the success rate was 78% for hybrid courses, 62% for totally online courses, but 77% for totally online courses other than PERDV 191A. Figure 15 shows that the success rates for hybrid and totally online courses without PERDV 191A were nearly identical for Fall 2000 and Fall 2001.

Table 22: Grade Distribution in Online Courses Calculated without Including Ws

		Fall 2000		Spring 2001		Fall 2001	
Type	Grade	N	%	N	%	N	%
Hybrid	Successful	463	77%	629	79%	611	78%
	Unsuccessful	136	23%	171	21%	168	22%
Hybrid Total		599		800		779	
Totally Online	Successful	446	73%	494	63%	622	62%
	Unsuccessful	168	27%	290	37%	387	38%
Totally Online Total		614		784		1009	
Totally Online (without PERDV191A)	Successful	241	77%	338	75%	442	77%
	Unsuccessful	72	23%	115	25%	131	23%
Totally Online (without PERDV191A) Total		313		453		573	

Figure 15

Course Success Rates in Online Courses without Including Ws



As expected, course by course success rates (including Ws) for online courses tend to be lower than the success rate in the peer on-campus equivalent (see Table 23). Only ENG 103 had a higher success rate for online students than on-campus peer students for each semester studied.

Table 23: Percent Successful Grades by Course

		Fall 2000		Spring 2001		Fall 2001	
Type	Course	Online	Peer	Online	Peer	Online	Peer
Hybrid	ACCT 230	47%	65%	59%	53%	47%	61%
	ART 101					55%	78%
	BIOL 102			32%	61%	54%	59%
	BIOMD 108					58%	73%
	BUSAD 101	38%	56%	29%	61%	42%	60%
	CHST 101	60%	84%	56%	79%	40%	75%
	CNEE 101			76%		67%	
	CNEE 106					73%	
	CNEE 124			69%		81%	
	CNEE 131	61%	54%	71%	75%	74%	86%
	CNEE 132			71%	63%	74%	
	CNEE 133	88%	100%			89%	67%
	CNEE 134	83%				81%	
	COMAP 101	44%	60%	46%	60%	44%	67%
	COMAP 113A	60%	64%	37%	55%		
	COMAP 114	36%		34%			

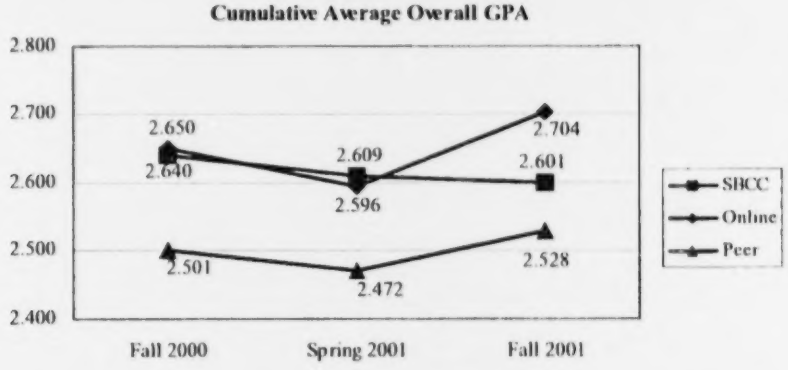
		Fall 2000		Spring 2001		Fall 2001	
Type	Course	Online	Peer	Online	Peer	Online	Peer
	COMM 161	65%	80%	59%	84%		
	EARTH 101	36%	75%	52%	68%	71%	71%
	ECE 102			58%	74%		
	ENG 103	76%	70%	67%	65%	72%	70%
	ENG 110	26%	70%	23%	67%	45%	71%
	ENG 111	74%	78%	49%	79%	52%	74%
	MAT/GDP 218			45%	35%	33%	
	HE 101	79%	69%	48%	67%	65%	72%
	HIST 103	49%	65%	71%	67%	50%	80%
	MAT 103			33%	62%	52%	73%
	MATH 100			48%	52%	59%	53%
	MATH 107			38%	63%	23%	62%
	MATH 117	52%	71%	64%	76%	69%	74%
	MATH 120	40%	64%	58%	60%	61%	58%
	MUS 110	42%	77%	50%	77%	50%	72%
	MUS 110HR			60%	92%		
	PE 163A	37%	58%	42%	61%	36%	96%
	PHIL 101	31%	67%	52%	60%		
	PSYCH 100			57%	63%		
	SPAN 101	49%	66%	40%	65%	46%	66%
	SPAN 102	53%	78%	53%	66%	45%	71%
	SPAN 115	76%		50%		72%	
	SPAN 139	63%					
	TA 103	50%	73%	67%	88%	32%	78%
Totally Online	AJ 101			61%	66%	77%	56%
	BIOL 120	65%	78%	71%		55%	84%
	BIOL 122			50%		44%	
	BIOL 151S	25%		37%		55%	
	BIOL 98	50%		14%		30%	
	BIOMD 146			60%			
	BUSAD 220			47%		50%	
	CIM 100	68%				69%	
	CIM 125			71%		73%	
	CIM 200					53%	
	COMAP 103	36%	48%	54%	50%	34%	
	ECE 102					56%	68%
	GDP 109			43%	59%	31%	41%
	HIT 100	68%				69%	
	HIT 150	46%		69%		56%	
	HIT 200	61%				50%	
	HIT 205			52%			
	HIT 210			65%		63%	
	HIT 220			64%			
	HIT 230			70%			
	HIT 240	55%				59%	
	HIT 250			70%			
	HIT 275			86%			
	PERDV191A	67%	45%	46%	42%	40%	48%
	PHIL 101					58%	70%
	PHIL 111					75%	76%

		Fall 2000		Spring 2001		Fall 2001	
Type	Course	Online	Peer	Online	Peer	Online	Peer
	PSYCH 100	46%	61%			43%	66%
	SPAN 103					72%	82%
	SPAN 104					55%	78%
Overall		57%	69%	54%	66%	53%	67%

Cumulative GPA

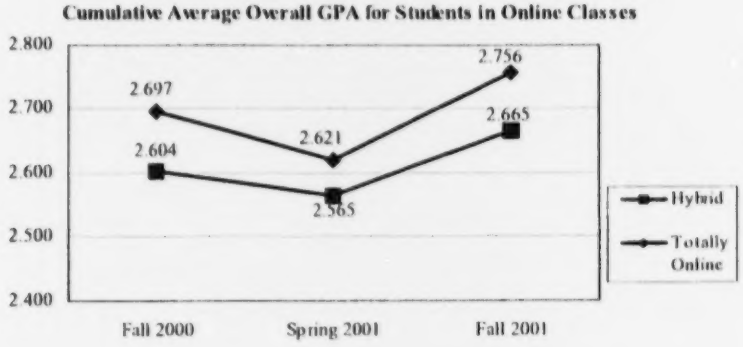
A comparison of average GPA (Figure 16) shows that contrary to their success rates in the online classes themselves, students who take online classes carry a higher cumulative GPA at the end of the term than their counterparts in on-campus peer classes. In Fall 2001 online students had an average GPA of 2.704 compared to 2.528 for their on-campus peers. In fact, students in online classes resembled SBCC overall in Fall 2000 and Spring 2001 before outperforming SBCC in Fall 2001. Based on the demographic data presented earlier, the older students in online classes most likely carry a higher GPA than those who chose to take their classes on campus.

Figure 16



Within online courses, students in totally online classes consistently have a higher GPA than those in hybrid classes (see Figure 17). The difference was consistent across all three terms of this study.

Figure 17



Conclusions and Implications

The detailed information and analysis in this study covered several critical components: course offerings and enrollments, student demographics and student success. The findings indicate progress in some areas and concern in others.

Over the last three semesters the online instruction has evolved in terms of courses offered and active at census from 38 in Fall 2000 to 56 in Fall 2001. The number of sections active at census has increased from 52 to 77. Some of the online courses have had some time to mature. Of the cumulative total of 66 different courses offered, active at census over the three semesters, 27 (41%) were offered every semester, 24 (36%) were offered in two of the three semester and 15 (23%) were offered, active at census only one semester.

In terms of delivery method, whereas hybrid courses continue to dominate at the course level, there are more multiple sections of the same course offered for totally online than for the hybrid courses. For example, in Fall 2001, overall there were 32 hybrid and 24 totally online different courses. Within the 32 hybrid courses there were 38 sections offered whereas within the 24 totally online courses there were 39 sections offered. In Fall 2000 and Spring 2001, the number of hybrid sections was significantly higher than totally online, a trend reversed in Fall 2001. This reverse in number of totally online sections is a positive change as hybrid courses had lower student success and higher attrition than totally online courses in Fall 2000 and Spring 2001.

The unduplicated enrollment has increased consistently over the three semesters from 1,293 in Fall 2000 to 1,837 in Fall 2001, a 42% increase. As noted in the analysis, the enrollment in PERDV 191A represents about 25% of all online enrollments.

Enrollment patterns indicate that students have followed a stable demand for online courses. The percentage of students enrolled in two or more online courses within the same semester has remained stable over the period, 22%. In all three semesters, at least 44% of the online students were enrolled only on online sections.

Some online students are repeating this experience over multiple semesters. Of the students who enrolled in at least one online course in Fall 2000, 21% of them enrolled in another online course in Spring 2001 and 13% of the original group were still enrolled in online classes in Fall 2001. For the Spring 2001 cohort, 18% enrolled in online courses again the following fall. The smaller rate could be due to the longer time period between spring and fall. In the future, these persistence rates will be compared to the on-campus peer courses and SBCC overall. Thus, roughly about 20% of online students enrolled online in one semester continue to be enrolled online at least the next fall or spring semester. It is clear that a trend has emerged which indicates that the college is well on its way to achieve one of its goals for online delivery – the development of a stable "market" for this type of instruction. The extent to which students are taking online classes in multiple semesters is an indicator of both student satisfaction as well as sustained demand.

The demographic profile of online students has remained fairly stable over the three semesters. Female students dominate both totally online and hybrid courses in all three semesters, with a higher percentage of female students in totally online than hybrid courses. Course offerings help explain the gender distribution to some extent (e.g., HIT courses, which

are all totally online, attract more female students). In term of age, online students are older than SBCC students in peer courses but slightly younger than the SBCC overall student population. Students in hybrid courses are older than those in totally online courses. PERDV 191A, which enrolls high school students, lowers the average age of the totally online students. The ethnicity of online students has been fairly similar to peer on-campus courses. Compared to SBCC overall, online courses have a smaller percentage of minority students, specifically Hispanic students. The other minorities are represented in similar or higher proportions (this is the case for Black students) compared to SBCC overall.

The area of student success indicates some improvements as well as some continued concerns. Overall, online courses have a lower attrition by census rate than SBCC but higher than peer on-campus courses. Overall, online attrition by census was 27% in Fall 2000 and Fall 2001 and 24% in Spring 2001. The after census attrition was significantly higher for online classes: 27% in Fall 2000, 25% in Spring 2001 and 24% in Fall 2001. The positive aspect is that these rates have declined. The SBCC respective rates were 15%, 14% and 15%. The peer rates were similar to the SBCC rates. The analysis of attrition by type of online delivery indicates that hybrid courses have the highest attrition rates both before and after census. These high rates impact negatively the overall online attrition rates.

The high attrition rates impact the successful grade rates. The success rates for online classes continue to be significantly lower compared to SBCC overall and peer on-campus. In Fall 2001, the success rate for all online courses was 53% compared to 69% for SBCC and 67% for peer on campus. If PERDV 191A is removed, the Fall 2001 success rates for online classes increases to 56%. Totally online courses had higher courses success rates than hybrid in Fall 2000 and Spring 2001 but lower in Fall 2001. The reverse of course success rates in Fall 2001 is a significant improvement in the area of hybrid courses. When excluding Ws, the course success rates of online classes, while still much lower than for SBCC overall and peer on-campus, indicate that the major impediment in achieving satisfactory success in online courses is the high numbers of Ws. Attrition both before and after census continues to be the one major area of concern for online education at SBCC as well as at many other colleges. The college would be well served if the work that has begun in this area will continue.

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